DOCUMENT RESUME

ED 305 163 PS 017 879

AUTHOR Feiring, Candice; Lewis, Michael
TITLE The Transition from Home to School in Children's Social Networks.
SPONS AGENCY Grant (W.T.) Foundation, New York, N.Y.
PUB DATE Apr 89
NOTE 31p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Kansas City, MO, April 27-30, 1989).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adults; *Age Differences; Early Childhood Education; Family (Sociological Unit); *Friendship; Individual Development; Longitudinal Studies; *Mothers; Peer Relationship; *Social Development; *Social Networks; *Young Children
IDENTIFIERS *Transition to School

ABSTRACT

This study longitudinally examined attributes of children's social networks as they changed from the preschool period to middle childhood. The social networks of 75 middle class white children at 3, 6, and 9 years of age were assessed for daily contact and number of contacts with kin, nonkin, adults, peers, and same and opposite sex friends. Data from the Robert Wood Johnson Medical School Longitudinal Study were used for the assessment. The data allowed for description of quantitative and qualitative changes in the children's networks as the children, presumably, became increasingly capable of choosing their social network members within the constraints set by parents and society. Age changes in the network structure that reflected the transition from home to school were expected. Network changes were found to reflect various kinds of developmental functions. Some changes, such as the linear increase in the daily contact with peers, appeared to be gradual. Some changes, such as the shift to very little kin compared to nonkin contact, or the drop in number of opposite sex peers, appeared to occur between 3 and 6 years. Some changes, such as the increase in number of peers and in particular same-sex friends, showed the greatest shift at 9 years. The expectation that the major transition would occur when children between 3 and 6 years moved from home to school was only partially supported. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED305163

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

The Transition from Home to School in Children's Social Networks

Candice Feiring

and

Michael Lewis

Institute for the Study of Child Development
Robert Wood Johnson Medical School
University of Medicine and Dentistry of New Jersey

Paper presented at the Symposium Social Network Transitions: Changing Structures and Functions from Childhood to Adolescence. C. Feiring, Chair, Society for Research in Child Development, Kansas City, April, 1989.
The preparation of this paper was made possible by the support of the William T. Grant Foundation.

PS 017879

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Candice Feiring
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

This study concerns how the social network changes as children move from a more home to a more school centered orientation. The social networks of 75 middle class white children were assessed at three, six, and nine years of age. Network changes were found to reflect different kinds of developmental functions. Some changes appeared to be gradual, such as the linear increase in the daily contact with peers. Other changes such as the shift to very little kin compared to non-kin contact, seemed to occur more quickly as the children entered primary school. Other changes occurred after the child had been in grade school for a period of time, such as an increase in the number of peer and non-relative adult network members. Also, by nine years children report many more friends than their mothers do.

The structure of the network provides a social map which identifies the location of an individual within a specific social world. This structure defines with whom the person has the opportunity to interact. It also defines opportunities for observing others in interaction, as well as delimits access to situations and activities involving social or nonsocial stimulation. Cultural rules and conformity to these rules can be established and maintained not only through direct reinforcement of role appropriate behavior but also by network composition. Sameroff (1987) has referred to the concept of environtype to suggest that certain environmental structures can constrain the limits of and possibility for behavior and development. Just as parents structure the home environment, for example by providing sex-typed toys, books, separate rooms for siblings, so do they and other members of society structure the social network to encourage the development of appropriate behavior patterns. It has been suggested that the power of parents and other socialization agents to influence social behavior resides more in their social network composition (Cochran & Brassard, 1979; Cochran & Riley, 1987; Filsinger & Lamke, 1983) and the assignment of children to settings than in their providing direct instruction and reinforcement (Cochran & Riley, 1987; Feiring & Coates, 1987a; Lewis & Feiring, 1981; Whiting, 1980; Garbarino, Burston, Raber, Russell & Crouter, 1978; Parke & Bhavnagri, 1989).

This study examines the attributes of the children's social networks as they change over age from the preschool period to the

beginning of formal schooling and middle childhood. As children grow up they expand their capabilities to do more things with more people in a widening variety of settings (Garbarino & Gilliam, 1980). Of particular interest here is how the social network changes as children move from a more home to a more school centered existence. Around six years of age, when the child enters formal school the social network expands to include a new set of adults (teachers, principals, other school staff) and a new set of peers (students). Entwistle and Hayduk (1982) label this period the school-child stage, distinguished by the transition from "home child" to "school child". As children enter primary school and even more so as they enter middle childhood, they become more independent of their parents in seeking and initiating social contact.

In order to explore the social network structure of children as they make the transition from a home centered to a more school centered existence, data from The Robert Wood Johnson Medical School Longitudinal Study were examined. The social networks of children at three, six and nine years of age were assessed for the number of and daily contact with kin, nonkin, adults, peers and same and opposite sex friends. The data enables us to describe the quantitative and qualitative changes in the same children's networks as they presumably become increasingly capable of choosing their social network members within the opportunities and constraints set by parents and society.

Age changes in the network structure reflecting the transition from home to school were expected. Six years was viewed as a transition period as around this age, children would

be adapting to the expanded social world and increased demands of grade school life. In contrast, nine years was viewed as an age point which might be more characterized by consolidation of trends noted at six years. Therefore, we expect to see more stable patterns from six to nine years than from three to six years.

Another focus of this study was the relationship between sex of child and developmental changes in network structure, especially in regard to same and opposite sex peer contact. A sex of child by age interaction was expected whereby children showed the greatest change toward increased same sex contact from three to six years with a less dramatic change from six to nine.

A related issue to how the networks of children change as they become more school oriented is the extent to which mother's network report accurately reflects their children's social contacts. As children become more independent they are more likely to frequent setting where mothers do not observe them. Mothers thus become less able to keep track of their children's network members, at least through direct observation.

Of particular interest here is an estimation of the transition point at which mothers seemed to lose count (as it were) of their children's friendship network. In order to explore this issue, we compared mother and children's reports of friends. We expected a larger discrepancy between mother and child at the oldest age point (nine years), rather than the transition point (six years). Nine-year-olds are more socially capable and may need to rely less on their parents for social arrangements than six-year-olds even though both age groups may spend about the

same amount of time in school rather than home.

Method

Study Participants

The sample consisted of 75 children and their mothers who participated in a longitudinal study which began in infancy. The children were primarily from two-parent American families of European descent. The social network data were collected when the children were three, six and nine years of age. Of the 75 children, 38 were male and 37 were female. Thirty-seven families were upper middle SES and thirty-eight were middle SES (Feiring & Lewis, 1981).

Procedure

At three, six and nine years, the children and their mothers came to the laboratory for observation, and were given questionnaires and an interview assessment was also conducted. At three, six and nine years, while the child was being tested alone, the mother completed the network questionnaire. At six years during the laboratory testing, mother and child were interviewed separately concerning the child's friends, using a birthday party situation. At nine years the child was interviewed in the laboratory concerning number and frequency of contact with friends.

Mothers Report of the Child's Network

At each age point, mothers were asked to complete an adapted version of the Pattison Psychosocial Network Inventory (Pattison, Defrancisco, Wood, Frazier, & Crowder, 1975). In questionnaire form, the mother was asked to list the persons in the child's social network in the categories of immediate family residing in

the same household as the child, relatives of the child not residing in the same household, friends of parents and friends of the child whom the child knew in the past year. The mother was asked to specify each person's age, sex, the relationship of each person listed to the child (e.g., for the relatives category: cousin, grandparent, etc.) and to indicate the amount of contact the person had with the child. Contact was reported as daily, weekly, monthly, semi-yearly or yearly and was defined to include face-to-face contact, phone contact or letter. Daily contact was defined as people the child saw or communicated with either by phone or letter at least four times a week. While the daily contact measure did not allow us to determine length or quality of contact, it did give us a rough estimate of how many people were most frequently in contact with the child. From the mother's report, we were thus able to obtain (1) the number of people in the network, and (2) daily contact defined as the number of people the child had contact with at least four times in a week[1]. Number and daily contact measures were obtained for people classified in terms of: (1) Kinship status - relatives (all kin except nuclear family) and nonrelatives (all nonkin adults and peers); (2) Age - adults (all network members of age 18 or older, excluding the subjects' parents) and peers (all persons under age 18, excluding the subjects' siblings); and (3) Sex of friend - boy friends (all male children excluding brothers) and girl friends (all female children excluding sisters). Proportion measures[2] were also used since they allow for the estimation of the relationship between two subsets of people within a given category (e.g., the number of peers divided

by the number of peers plus adults).

Birthday Party at Six Years

The mother and child were interviewed separately concerning the people whom the child would invite to a birthday party. The experimenter recorded the child's list and the mother wrote down whom she though her child would want to attend. The mother's and child's responses were compared for the total number of people invited, the number of male friends, female friends, male relatives, and female relatives.

The Friendship Interview at Nine Years

To measure friendship patterns, the nine-year-old child was interviewed on the following series of open ended questions: "What friends do you play with when you're not at school and how often (daily, weekly, monthly)?" "What friends do you play with at school?" "Who are friends that you sleep over each other's house?" and "Who are your best friends?" From this interview we examined (1) the total number of friends, and (2) the total number of male and female friends reported by the child.

Results

A repeated measure analysis of variance design with Sex as the between subject factor and Age as the within subject factor was used to test for the differences between the various categories of network members, i.e., Adults and Peers, Kin and Nonkin, boy friends and girl friends for total number, daily contact and proportion measures. Repeated measures were used to determine whether changes in the network variables occurred between three, six and nine years of age for the sample as a whole and for sex of child X age interactions.

Tables 1 & 2 about here

Table 1 presents the mean number of people in the network, while Table 2 presents the mean number of network members with whom subjects have daily contact by Age and Sex of the subjects. For simplicity in the text, the average number is referred to as number and average daily contact is referred to as daily contact[3]. The general characteristics of the children's networks, age changes and age x sex interactions are described for the network categories of kin and non/kin, peer and adult and boy and girl friends. This is followed by a comparison of mother's and children's report of friends at six and nine years.

Network Characteristics and Age Changes

Kin and Nonkin

In early through middle childhood, children have a greater number and more daily contact with nonkin than kin (at three, $t(74) = 4.87$, $p = .001$ for number; $t(74) = 4.52$, $p = .0001$ for daily; at six, $t(74) = 5.76$, $p = .0001$ for number, $t(74) = 11.31$, $p = .0001$ for daily; at nine, $t(74) = 18.59$, $p = .0001$ for number, $t(74) = 14.35$, $p = .0001$ for daily [see Tables 1a and 2a]).

Examination of age difference for number of relatives shows a small but significant increase with age in number of kin in the network ($F(2,146) = 4.04$, $p = .02$ [see Table 1a]). Inspection of the network records suggest this is mostly due to an increase in cousins. There is a significant effect of age on number and daily contact with nonkin ($F(2,146) = 107.52$, $p = .0001$, for

number [see Table 1a]; $F(2,146) = 23.55$, $p = .0001$ for daily [see Table 2a]). For both number and contact with nonkin measures there is a small but insignificant increase from 3 to 6 years. However, at nine years, a large increase has taken place in level of nonkin activity such that there is over a 100% increase in the number of nonkin in the network and for the contact measure the increase approaches 100%. The proportion measure of number of kin to nonkin shows the effects of this steep acceleration of nonkin contact at 9 years ($F(2,106) = 57.12$, $p = .0001$). While there is no change in the number of kin to nonkin at three to six years, this proportion drops significantly at nine years. The proportion of daily contact with kin to nonkin also shows a significant association with age ($F(2,146) = 7.76$, $p = .01$) with the significant drop occurring between three and six years of age (see Table 2a).

The proportion of kin to nonkin daily contact shows an interaction of age with the sex of the child which approaches significance ($F(2,146) = 2.81$, $p = .07$). Girls at three years see proportionately more kin to nonkin than they do at six and nine years, with little change from six to nine years. Boys show lower proportion scores than girls at three years and their scores show a smaller linear decline at each subsequent age point. Except for girls at age three, the proportion of daily contact with kin to nonkin is very small for most children in this sample.

Peers and Adults

At three, six and nine, children have a greater number of adults than peers in their networks (at three, $t(74) = 8.78$,

p = .0001; at six, t(74) = 12.51, p = .0001; at nine, t(74) = 14.26, p = .0001 [see Table 1b]). At three years, children have about the same amount of daily contact with peers (t(74) = 4.17, p = .001), but by nine years, the level of adult daily contact is somewhat higher than peer contact (t(74) = 2.70, p = .01 [see Table 2b]).

For number and daily contact with adults there are significant age effects such that the three and six year levels are similar with an increase occurring between the earlier and nine years age point (F(2,146) = 24.13, p = .0001 for number; F(2,146) = 19.51, p = .0001 for daily). For the number of peers in the network, we also notice a similar significant age effect (F(2,146) = 15.40, p = .0001) whereby there is no change between three and six years with an increase occurring by nine years. The age effect is significant for peer daily contact as well (F(2,146) = 9.24, p = .001) but the age trend is more gradual showing a small linear increase from three to six to nine years.

The proportion of peers to adults shows a significant association with age (F(2,146) = 3.03, p = .02) such that there is a small decrease in number of peer to adults from three to six to nine years (see Table 1b). For the proportion of daily contact with peers to adults there is also a significant association with age (F(2,146) = 5.41, p = .01 [see Table 2b]). There is an increase in the proportion of daily contact with peers to adults from three to six years and then a decrease from six to nine years. Note that it is only at six years that daily contact with peers is slightly more than with adults (i.e. the proportion score goes above .50). There were no significant age x

sex interactions for the peer or adult categories.

Boy and Girl Friends

There are significant age by sex interactions for number and daily contact measures for boy friends ($F(2,146) = 8.30$, $p = .001$ for number; $F(2,146) = 6.18$, $p = .001$ for daily) and girl friends ($F(2,146) = 14.68$, $p = .001$ for number; $F(2,146) = 7.42$, $p = .001$ for daily). For boy subjects there is a linear increase in the number of and daily contact with boy friends. Boys show the largest shift from three to six in same sex contact while the number of same sex friends shows the biggest change from six to nine. For girl subjects there is a decrease in the number of and daily contact with boy friends, and this appears to happen from three to six years leveling off at nine years (see Table 1c and 2c). Girl subjects show a linear increase in number of same sex friends while the contact measure shows the largest change from three to six years. For boy subjects, the number of girl friends drops the most from three to six years with almost no change from six to nine years. For daily contact with girl friends, boy subjects show a flat function over age.

There is a significant age by sex interaction for number ($F(2,146) = 6.65$, $p = .03$) and daily contact ($F(2,146) = 6.65$, $p = .03$) proportion of boy to girl friends. Boy subjects show a linear increase in the relative number of boy to girl friends while girls show a flat no change function across age. For the proportion of daily contact with boy friends, boy subjects show the biggest increase from three to six years with little change from six to nine years and girl subjects show the biggest decrease from three to six years with little change at nine

years.

Mother and Children Reports of the Peer Network at Six Years

When the children were six years of age we attempted to get some estimate of the extent to which mothers were aware of the child's friends by independently asking the mothers and children to give us a listing of the people the child would invite to his or her birthday party. In most cases the child and mother listed friends from both the home and school setting. Comparing the extent to which the mother's and the child's lists matched showed an overlap in identity of friends listed at 65%. This suggests mothers and children agree, to some extent, on the identity of the children's friends and that mothers are aware of many of the child's friends. Examining total number of people listed by children and mothers (as opposed to actual identity of people named) also supports this conclusion. There are no significant differences between children and their mothers for total number of friends ($\underline{M}$ = 6.28 children; $\underline{M}$ = 7.18 mothers).

Mothers' and Children's Report of the Peer Network at Nine Years

When the children were nine years of age, we asked them to tell us about their friends in order to get an idea of the number of frequency of peer contact. Comparisons of the child's report of number of friends from the interview with the mothers report of friends from the network questionnaire were conducted in order to estimate the mother's awareness of their children's peer network. We did not expect extremely high agreement between mother and child report. In addition to differences due to the employment of different methods to measure networks, it was also the case that nine-year-old children should be making peer

contacts outside of the parents sphere of awareness, more so than at six years.

There is a significant difference between number of friends reported by children and their mothers ($t[73] = 3.65$, $p < .001$, M mom = 7.03, M child = 9.52). The biggest discrepancy between child and mother is for same-sex friends. Mothers of daughters significantly underestimate the numbers of same-sex friends (M daughters girl friends = 10.33, M mom = 5.95, $t(35) = 6.12$, $p = .0001$). This finding is equally true for mothers of sons who significantly underestimate the numbers of same sex friends (M son's boy friends = 9.37, M mom = 5.08, $t(37) = 5.74$, $p = .0001$).

Discussion

Age Changes

As children become older, the composition of their networks change both in terms of the absolute number of and contact with people in specific categories. Other characteristics of the network remain consistent across age. From early into middle childhood, there are consistently more nonkin than kin in children's networks. In this middle class culture, this network characteristic is to be expected in contrast for example to the Abaluyia of Kisa or the Mandinka culture where kin predominate (Weisner, 1984; Whittemore & Beverly, 1988). A social world where the child must learn early to adapt to social exchanges with less familiar people is reflected in the large number of nonkin in the networks of three year olds. Significant changes take place in the kin/nonkin network structure from three to nine years. Even though the absolute number of kin increases from three to nine

nine years, the proportion of kin to nonkin gets smaller. The largest drop in number of kin to nonkin occurs from six to nine years, while the contact measure shows the biggest change between three and six years. This suggests that a transition to relatively less kin contact occurs earlier than a change in numbers of kin to nonkin in the network. Between three and six years, there is a 12% drop in the proportion of kin to nonkin contact with little drop (2%) at nine years. For number, the proportion of kin to nonkin does not change from three to six years and then drops 18% from six to nine years. The movement away from kin contact and an increasing amount of time spent outside the home environment has been documented by others for middle childhood and adolescence (Bryant, 1985; Blyth, 1982; Konner, 1975).

It is well known that peer contact increases as children get older, especially during the early to middle childhood period (Hartup, 1983). The findings here show a gradual linear increase in daily contact with peers. In regard to number of peers however, the biggest change occurs between six and nine years with approximately a 70% increase.

While the peer network is increasing with age, so is the adult network. Daily contact with adults shows a gradual linear increase from early to middle childhood while, similarly to the peer network, the number of adults shows the biggest increase from six to nine years. Thus, the findings suggest that children's networks are changing not only in terms of peers, but in terms of adults as well. Recently, other investigators have noted an overemphasis on peer contacts and have indicated the

necessity for some caution in overgeneralizing the importance of peers to the importance of adults (Bryant, 1985; Steinberg & Silverberg, 1986). As children move into middle childhood, it appears as if they may have the opportunity for more elaborate sources of exchanges between network members of the same and older generations (Vaux, 1985).

In regard to the proportion of peer to adults, we note that at three, six and nine years, there are always more adults than peers in the children's networks, For daily contact, peers show a small predominance at six years, but otherwise adult contact is more prevalent at three and nine. The pattern of results at three and six years fits our expectations. Developmentally, we would expect an increase in peer to adult contact along with an increase in peer orientation and the ability to make peer contact independent of the parent (Hartup, 1982; Bryant, 1985). However, the drop in peer to adult contact from six to nine years violates our expectations.

To some extent the data at nine years especially in regard to peer contact may reflect a maternal report bias. At nine years, children list almost twice as many same sex friends compared to their mothers. Consequently, mothers may be less aware of the extent of peer contact by nine years and may also be more likely to overestimate the extent of adult contact. While our data cannot unravel the specific report biases, it does suggest that by nine years of age, especially in regard to peer contact, the perspective of child and parent differ.

While predominant same sex contact is the rule by three years of age in this sample, this pattern also shows

developmental influences. From three to six years, we note a shift toward a smaller number of opposite sex friends with an increase in same sex friend contact. From six to nine years, the largest increase in number of same sex friends is observed. This suggests that perhaps the initial shift to formal school is related to how the social world is structured by adults, according to sex of child while by nine years, to a greater extent, than at six years, child preferences are operating. Patterns of same and opposite sex peer network structure reflect in part the child's own choice of friends according to sex appropriate role behavior, and also must reflect to some degree parents' and other social institutions structuring of the social environment to provide "appropriate" contact opportunities (Cochran & Riley, 1987). The structure of the social environment as reflected in he social network may go beyond individual choices for playmate interaction. The young child's network structure may best be viewed as a function of the opportunity the parents and other social agents (e.g. teachers) provide as well as the individual proclivities of the child.

Concluding Remarks

Network changes with age appear to reflect different kinds of developmental functions. Some changes such as the linear increase in the daily contact with peers appear to be gradual. Other changes such as the shift to very little kin to nonkin contact or the drop in number of opposite sex peers appear to occur between three and six years as children move to a more school based existence Some changes show the greatest shift at nine years such as the increase in number of peers and in

particular same sex friends. Consequently, our initial expectation that the major transition is from home to school, from three years to six years, is only partially supported by the data. The three to six year shift may be more closely related to a child being less home-based and in particular with less time available, flexible time for visits with kin. The six to nine period may be more closely related to the child's emergence as school oriented with an increased breadth of peer and nonkin adult network members.

References

Blyth, D.A. (1982). Mapping the social world of adolescents: Issues, techniques and problems. In F. Serafica (Ed.), Social cognition, context and social behavior: A developmental perspective. New York, NY: Guilford Press.

Bryant, B.K. (1985). The neighborhood walk: Sources of support in middle childhood. Monographs of the Society for Research in Child Development, 50, 11985.

Cochran, M.M., & Brassard, J.A. (1979). Child development and personal social networks. Child Development, 50, 601-616.

Cochran, M.M. & Riley, D. (1987). Mother reports of children's social relations: Agents, concomitants and consequences. In J. Antrobus, S. Salzinger, & M. Hamner (Eds.), Social networks of children, adolescents and college students. Hillsdale, NJ: Lawrence Erlbaum.

Entwisle, D.R., & Hayduk, L.A. (1982). Early schooling: Cognitive and affective outcomes. Baltimore, MD: The Johns Hopkins University Press.

Feiring, C., & Lewis, M. (1981). Middle class differences in the mother-child interaction and the child's cognitive development. In T. Field (Ed.), Culture and early interactions (pp. 63-91). Hillsdale, NJ: Lawrence Erlbaum.

Feiring, C., & Lewis, M. (1987). The child's social network: Sex differences from three to six years. In C. Feiring & D.L. Coates (Eds.), The social networks of males and females: A life-span perspective. (a special issue) Sex Roles: A Journal of Research.

Filsinger, E.E., & Lamke, L.K. (1983). The lineage transmission of interpersonal competence. Journal of Marriage and the Family, 45, 75-80.

Garbarino, J., Burston, N., Raber, S., Russell, R., & Crouter, A. (1978). The social maps of children approaching adolescence: Studying the ecology of youth development. Journal of Youth and Adolescence, 7, 417-428.

Garbarino, J., & Gilliam, g. (1980). Understanding abusive families. Lexington, MA: Lexington Books.

Hartup, W. (1982). Peer relations. In C. Kopp & K. Krakow (Eds.), The child. Reading, MA: Addison Wesley.

Konner, M. (1975). Relations among infants and juveniles in comparative perspective. In M. Lewis & L. Rosenblum (Eds.), Friendship and peer relations. New York, NY: John Wiley & Sons. (pp. 99-130).

Lewis, M., & Feiring, C. (1981). Direct and indirect interactions in social relationships. In L. Lipsitt (Ed.), Advances in infancy research, 1, (pp. 131-163). New York, NY: Ablex.

Parke, R.D., & Bhavnagri, N.P. (1989). Parents as managers of children's social relationships. In D. Belle (Ed.), Children's social networks and social supports (pp 241-259). New York, NY: John Wiley & Sons.

Pattison, E.M., Defrancisco, D., Wood, P., Frazier, H., & Crowder, J. (1975). A psychosocial kinship model of family therapy. American Journal of Psychiatry, 132, 1246-1251.

Sameroff, A.J. (1987). Development systems: Contexts and evolution. In P.H. Mussen ()Ed.), W. Kessen (Series Ed.), Handbook of child psychology (Vol. 10, History, theory and methods. New York, NY: John Wiley & Sons.

Steinberg, L., & Silverberg, S.B. (1986). The vicissitudes of autonomy in early adolescence. Child Development, 57, 841-851.

Vaux, A. (1984). Variations in social support associated with gender, ethnicity and age. Journal of Social Issues, 41, 89-110.

Weisner, T. (1984). The social ecology of childhood: A cross cultural view. In M. Lewis (Ed.), Beyond the Dyad (pp. 43-58). New York, NY: Plenum Press.

Whiting, D.B. (1980). Culture and social behavior: A model for the development of social behavior. Ethos, 2, 95-116.

Whittemore, R.D. & Beverly, E.A. (1988). Trust in the Mandinka way: Cultural context and sibling caregiving.

Footnotes

[1]It should be noted that the focus of this study was the nature of the young child's network beyond the immediate family system. Consequently, we did not include in our analyses the parents and siblings of the children. Inclusion of nuclear family members increased the size of the network for relatives (parents and siblings), adults (parents), peers (siblings), males (fathers and brothers), and females (mothers and sisters). In most cases, inclusion of nuclear family in the analyses did not change the nature of the results.

[2]Daily contact and number proportion scores were calculated as follows: 1) for the kin category, relatives divided by relatives plus non-relatives; 2) for the age category, peers divided by peers plus adults; and 3) for the gender category, boy friends divided by boy plus girl friends. Proportion scores are calculated within subject and therefore overall means for groups cannot be used to estimate proportions. Prior to analyses, arc sign transformations were performed on the proportion.

[3]For each subject, the number of people in each category was calculated by summing across all people mentioned in a given category (e.g. peers) regardless of frequency of contact. Each subject then had a total number score for each category. The mean numbers shown in Table 1 were calculated by summing across the total number of score for each subject in a given group (e.g. female subjects) and dividing by the sample size of that group. Mean daily contact was calculated by taking the number of people

with whom the child had daily contact in a given category (e.g. peers) summing across all subjects in a given group (e.g. female three-year-old subjects) and dividing by the sample size of that group.

Table 1

Total Mean Number of People in Network by Age and Sex of Child

Table 1a

	Kin						Nonkin						Kin/ Kin + Nonkin					
	3		6		9		3		6		9		3		6		9	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total Sample	8.71	4.60	9.08	4.20	10.28	5.32	12.80	7.59	12.65	6.09	28.44	10.81	.42	.15	.42	.13	.26	.09
Boys	8.45	3.83	8.97	4.75	9.90	5.04	12.68	7.32	12.34	6.40	27.90	11.40	.42	.14	.43	.15	.26	.08
Girls	8.97	5.31	9.19	3.60	10.68	5.63	12.92	7.96	12.97	5.83	29.00	10.30	.42	.17	.42	.12	.26	.10

Table 1b

Peers and Adults

	Peers						Adults						Peers/Adults + Peers					
	3		6		9		3		6		9		3		6		9	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total Sample	6.99	3.95	6.44	3.84	9.52	5.10	14.52	8.02	15.28	6.65	21.57	8.62	.35	.16	.30	.13	.30	.11
Boys	6.71	3.83	6.39	4.08	8.84	5.50	14.42	7.38	14.92	7.10	21.61	9.44	.34	.12	.30	.14	.28	.12
Girls	7.27	4.10	6.49	3.63	10.22	4.62	14.62	8.73	15.65	6.24	21.54	7.81	.36	.19	.29	.12	.32	.09

Table 1 (continued)

Table 1c

Total Mean Number of People in Network by Age and Sex of Child

Female Friends and Male Friends

	Female Friends						Male Friends						Male Friends/ Male Friends + Female Friends					
	3		6		9		3		6		9		3		6		9	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total	2.68	1.88	2.85	2.23	3.71	3.30	2.99	2.50	2.64	2.39	3.32	2.88	.51	.29	.48	.36	.48	.39
Boys	2.11	1.35	1.45	1.33	1.53	1.99	3.50	2.59	3.82	2.40	5.08	2.50	.60	.26	.74	.24	.79	.25
Girls	3.27	2.17	4.30	2.05	5.95	2.88	2.46	2.32	1.43	1.68	1.51	1.99	.41	.29	.22	.24	.17	.20

Table 2

Social Network

Daily Contact by Sex and Age

Table 2a

Kin and Nonkin

	Kin						Nonkin						Kin/Kin + Nonkin					
	3		6		9		3		6		9		3		6		9	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total	.31	.72	.17	.53	.19	.69	3.15	5.31	4.07	3.05	7.50	4.36	.17	.36	.05	.16	.03	.08
Boys	.26	.64	.16	.49	.05	.23	2.68	3.14	3.82	3.17	8.00	5.25	.09	.24	.06	.20	.005	.02
Girls	.35	.79	.19	.57	.32	.94	3.62	6.88	4.32	2.94	6.90	3.18	.25	.44	.04	.10	.05	.10

Table 2b

Peers and Adults

	Peers						Adults						Peers/Peers + Adults					
	3		6		9		3		6		9		3		6		9	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total	1.53	2.22	2.67	2.14	3.20	3.00	1.92	4.44	1.60	1.72	4.31	2.64	.43	.39	.56	.34	.38	.23
Boys	1.55	2.25	2.50	2.21	3.21	3.35	1.40	1.84	1.50	1.83	4.79	3.39	.48	.38	.57	.40	.36	.23
Girls	1.51	2.22	2.83	2.08	3.19	2.64	2.46	6.03	1.70	1.62	3.81	1.41	.43	.39	.55	.27	.40	.23

Table 2 (continued)

Table 2c

Social Network

Daily Contact by Sex and Age

Table 2c

Female Friends and Male Friends

	Female Friends						Male Friends						Male Friends/ Male Friends + Female Friends					
	3		6		9		3		6		9		3		6		9	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total	.76	1.24	1.47	1.62	1.63	2.04	.77	1.46	1.20	1.56	1.56	2.09	.49	.41	.44	.40	.48	.41
Boys	.63	1.08	.66	.94	.68	1.42	.92	1.62	1.84	1.82	2.58	2.39	.55	.43	.74	.33	.81	.27
Girls	.89	1.39	2.30	1.75	2.60	2.14	.62	1.28	.54	.84	.51	.93	.41	.38	.20	.29	.14	.19